

Notice of Allowability

Application No.

10/550,076

Examiner

Andrew W. Johns

Applicant(s)

WALKER

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the response filed 15 October 2007 and the interview of 07 December 2007.
2. ☒ The allowed claim(s) is/are 27-38.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 9/20/05, 10/22/07
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application
- ☒ Interview Summary (PTO-413), Paper No./Mail Date 12/7/07
- ☒ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Raymond Nuzzo (Reg. No. 37,199) on 07 December 2007.

The application has been amended as follows:

In the specification, page 1, amend the paragraph that begins at line 5 to read:

--This application is the national stage of International Application PCT/US04/09172, filed March 25, 2004, which claims the benefit of commonly owned and copending U.S. Provisional Application Serial Nos. 60/458,769, filed March 27, 2003, and 60/505,944, filed September 25, 2003.--

In the claims, amend claim 27 to read:

--27. (currently amended) A method for processing an image of a specimen or dental x-ray to identify a pathogen within the specimen or dental x-ray, comprising the steps of:

providing an image of a specimen or dental x-ray;

providing a parallel processing computing platform;

implementing a recursive hierarchical segmentation algorithm on the parallel processing computing platform and processing the image with the recursive hierarchical segmentation algorithm to isolate at least one segment of the provided image that has a feature that is of interest;

processing the isolated segment with a data mining algorithm to extract particular image data from the isolated segment; and
processing the extracted particular image data and ~~each of the~~ at least one reference image images with an optical recognition algorithm to determine if the extracted image data matches ~~any of the~~ the at least one reference images image.--

2. The following is an examiner's statement of reasons for allowance: None of the prior art teaches or suggests the claimed invention. While the use of recursive hierarchical segmentation algorithms on parallel computing platforms, *per se*, is known (see US 6,895,115 B2 to Tilton, cited by applicant, for example), none of the prior art teaches or suggests applying a data mining algorithm to the results of such segmentation to extract particular image data to be processed with at least one reference image using an optical recognition algorithm, as variously required by claims 27 and 35.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. The restriction requirement, set forth in the Office Action mailed 13 September 2007, has been carefully reconsidered, and the claims are not believed to be patentably distinct. The restriction requirement is hereby withdrawn, and all claims have been considered on their merits.

4. Claims 27-38 (now renumbered for issue as 1-12, respectively) are allowed.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Boudreau et al. teaches the use of segmentation and data mining in the analysis of

electrophoresis images but does not appear to apply a data mining algorithm to the results of a recursive hierarchical segmentation algorithm to extract particular image data to process with reference image data in an optical recognition algorithm. Corset et al. and Kamath et al. each variously teach hierarchical processing of image data.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Johns whose telephone number is (571) 272-7391. The examiner is normally available Monday through Friday, at least during the hours of 9:00 am to 3:00 pm Eastern Time. The examiner may also be contacted by e-mail using the address: andrew.johns@uspto.gov. (Applicant is reminded of the Office policy regarding e-mail communications. See M.P.E.P. § 502.03)

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached at (571) 272-7453. The fax phone number for this art unit is (571) 273-8300. In order to ensure prompt delivery to the examiner, all unofficial communications should be clearly labeled as "Draft" or "Unofficial."

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center Receptionist whose telephone number is (571) 272-2600.

A. Johns
7 December 2007

/Andrew W. Johns/
Primary Examiner, Art Unit 2624